



Greater Harney Valley – Groundwater Study Advisory Committee Meeting
Wednesday, July 27, 2016
11:00am – 5:00pm
Harney Education Service District – 25 Fairview Heights Loop, Burns, OR



Meeting Summary

Participants

Advisory Committee Members

Allison Aldous, The Nature Conservancy
 Brandon Haslick, Burns Paiute Tribe
 Brenda Smith, High Desert Partnership
 Dan Nichols, County Commissioner and Landowner
 Erin Maupin, Citizen/Landowner
 Fred Otley, Citizen/Landowner
 Herb Vloedman, Citizen/Landowner
 Gary Ball, US Fish and Wildlife Services
 JR Johnson, Oregon Water Resources Department
 Karen Moon, Harney County Watershed Council
 Mark Owens, Citizen/Landowner
 Wayne Evans, Citizen/Landowner
 Steve Rickman, Landowner/Business Owner

Groundwater Study Team

Darrick Boschman, OWRD
 Jerry Grondin, OWRD (not present)
 Justin Iverson, OWRD
 Steve Gingerich, US Geological Survey (USGS)
 Terrence Conlon, USGS
 Hank Johnson, USGS
 Esther Pischel, USGS

Others

Harmony Burrigh, OWRD (Facilitator)

Meeting Overview, Action Items, Decisions, and Updates

The purpose of this meeting was to discuss and set clear expectations with respect to advisory committee commitments and contributions to the groundwater study, as well as provide information about the study to make sure everyone is on the same page. A public presentation at the beginning of the meeting provided a summary and timeline of the factors leading to initiation of the groundwater study, as well as an overview of planned study activities. During the following work session, the advisory committee members discussed: their goals and interests for the advisory committee, operating procedures/ground rules, the draft groundwater study work plan, the OWRD monitoring network, developing a local monitoring effort, and general communication/outreach.

Action Items

Who	What	When
Justin I and Harmony B	Send a link to the advisory committee members with other similar study reports (e.g. Upper Klamath Basin Study Report).	August 8
Justin I and Harmony B	Send materials from the Eola-Amity Hills Neighborhood Groundwater Monitoring Network to the committee for the working group to reference.	August 8
All Committee Members	Committee members will review the draft work plan and provide any additional constructive feedback so it can be taken into consideration in the revisions.	August 19
Darrick B	Develop more detailed maps of areas of interest (discussed at the end of the meeting) – these maps will include important reference points like roads, waterways, TRS, topographic lines, etc.	August 19

Groundwater Study Advisory Committee Meeting Notes – July 27, 2016

Harmony B and Darrick B	Put clear instructions on the Malheur Lake web page (http://bit.ly/malheurlakebasin) for accessing groundwater data on the OWRD website.	August 31
Harmony B	Update summary of input on goals, interests and concerns.	August 31
Harmony B and Mark O	Revise the draft ground rules and send them to the committee for review.	August 31
Mark O and Harmony B	Draft a statement of purpose and objectives for the committee to consider.	September 15
All Committee Members	Review the revised ground rules and send comments/edits/feedback to Harmony and Mark by the end of September.	September 30
Darrick B and Jerry G	Develop elevation maps of the water tables (using preliminary data)	October 3
Fred O and Mark O	Assemble a working group to discuss how to build and coordinate a local monitoring network with OWRD.	October 3
Justin I	Develop a one page handout describing Phase 1 and Phase 2 of the study, clarifying what is meant by a “conceptual model” and a “numeric model.”	October 3
Justin I and Darrick B	Update the work plan to reflect the USGS scope of work and other updates to the study design/approach. The updated work plan will include an executive summary, clearly lay out what questions are being answered, define specific field efforts, and specify roles and responsibilities.	October 3
Justin I and Darrick B	Breakdown the work plan in a tabular format to convey what questions are being asked and how they will be answered (i.e., what methods will be used).	October 3
Interested Committee Members	Interested advisory committee members will use these maps to solicit feedback from other community members about areas of interest that warrant further investigation/data collection.	October 15

Decision Points

- The committee agreed to operate using consensus minus one with the strength of individual support indicated by the use of a 1 to 5 scale (five being active support, one being active opposition, and three through five considered in favor for the purpose of determining consensus). The group will use a consensus process to make unified recommendations to the Department when appropriate.
- The committee agreed to elect a chair. Mark Owens was nominated and selected by consensus. The chair will help to coordinate meetings and manage group discussion and dynamics to promote a positive and productive exchange of ideas.

Updates

The next meeting is scheduled for October 20th, exact time and location to be determined. The chair and facilitator will develop and distribute an agenda for review prior to the next meeting. If you would like to propose discussion topics, email them to: harmony.s.burright@wrdd.state.or.us.

Detailed Meeting Notes

COMMUNITY PRESENTATION

Each meeting will begin with a brief community presentation, followed by an opportunity for members of the public to make comments for the advisory committee to consider during their meeting.

Darrick Boschmann, a groundwater scientist with the Oregon Water Resources Department (OWRD), delivered a presentation that provided an overview of the following information:

1. Study area geography and boundary
2. History of groundwater development and permits
3. Purpose and scope of the groundwater study
4. Development of the monitoring network
5. Access to online OWRD data

Key Discussion Topics/Questions:

- Need for clarity around how hydrologic and administrative boundaries are delineated and how they have changed over time.
- Need for more accurate water use assumptions and reporting since current assumptions may not be accurate. This is an area where the GW SAC and local landowners could help fill a data gap.
- The current groundwater study will build off of past studies to the extent practical. New data will be collected to improve our knowledge and understanding of the system.
- Groundwater recharge and discharge to surface water will be reassessed through the groundwater study. OWRD will not be relying solely on past estimates.
- Concern that well construction issues will affect the overall quality of the data, especially if water is moving between different strata. Old well logs may not be accurate or the condition of the well may have changed. OWRD staff provided an overview of the measures they take to ensure data quality. OWRD should consider taking video of wells that are monitored to check on well construction, condition, and cascading water.
- Clarification that the study will help determine how water moves horizontally and vertically and the extent to which different drainages are connected or are separate systems delineated by geologic features.
- OWRD encourages landowners to volunteer access to unused wells for assessment and potential inclusion in the observation well network.

Public Comments:

Concern over OWRD management decisions. OWRD should have stopped issuing permits when use exceeded recharge. The way OWRD handles well interference issues does not protect senior users who are told to drill a deeper well. This is a serious issue and OWRD needs to seriously consider the impacts

of this management approach. A member of the public volunteered use of their unused wells for monitoring. **Decisions:** None

Action Items:

- OWRD will put clear instructions for accessing groundwater data on the website.
- OWRD will provide a set of maps showing the Malheur Lakes administrative basin, the GHVGAC, and the study area side by side on a single sheet (plus include the composite map?)

Proposed Future Discussion Topics:

- Clarify how OWRD uses data from well logs and permit condition measurements.

PURPOSE AND OBJECTIVES

The advisory committee members reviewed the input/feedback compiled before the meeting, including identification of shared goals. They felt that their goals, interests and concerns were generally represented in the summary. The advisory committee members and groundwater study scientists were each invited to share, in their own words, what brings them to the table and what they hoped to get out of the process.

Key Discussion Topics:

- Each member shared their goals, interests and concerns for the Groundwater Study Advisory Committee process.
- The main shared goal is that the study be scientifically rigorous and technically sound and that it include the best available data and information. The other shared goal is to continue to look for opportunities where local knowledge, expertise and data can improve the study.
- Protection of senior water rights was also an overarching theme not previously captured.

Decisions Points: None

Action Items:

- The facilitator (Harmony) will updated the summary of committee input.
- The chair of the advisory committee and the facilitator will draft a statement of purpose and objectives for the committee to consider.

Future Discussion:

- Discuss and finalize of a statement of purpose and objectives.

GROUND RULES AND GOVERNANCE

JR (OWRD) provided an overview of how committee members were selected. Members of the community were invited to submit a letter of interest to the County Court. This opportunity was advertised in the local paper, on the County Court's website, OWRD's website, the Watershed Council's website and through email lists. The County Court and OWRD jointly appointed the committee members. Anyone who submitted a letter of interest by the submission date was appointed. The committee reviewed and discussed proposed ground rules and protocols for the advisory committee.

Discussion Topics:

- Members of the committee need to commit to attend in person for the duration of the groundwater study. This was emphasized by both OWRD and the County Court as an important condition of participation.
- The County Court and OWRD both recommend electing a chair. The chair of the committee: serves as the leader of the process; communicates with each of the advisory committee members to elevate individual ideas/discussion topics and build an agenda that is acceptable to all; coordinates with the facilitator to make sure that meetings are well structured and that expectations are clear; helps to identify and resolve conflict if/when it arises; manages group discussions and dynamics to ensure the process is positive and productive.

Decision Points:

- The committee agreed to operate using consensus minus one with the strength of individual support indicated by the use of a 1 to 5 five (five being active support, one being active opposition, three through five being in favor of a consensus decision). There should be an opportunity to record minority opinions.
- The committee agreed to elect a chair. Mark Owens was nominated and selected by consensus.

Action Items:

- Harmony Burreight (OWRD) will work with Mark Owens (chair) to revise the ground rules and send them to the committee for review.
- Advisory committee members will review the ground rules and send comments/edits/feedback to Harmony and Mark by the end of September.

Future Discussion:

- Review and adopt revised ground rules.

WORK PLAN OVERVIEW AND DISCUSSION

OWRD provided a more detailed overview of the Draft Groundwater Study Work Plan and led the group in a discussion about some advisory committee comments, questions, and concerns. Advisory committee members are encouraged to contact Justin or Darrick with additional feedback.

Key Discussion Topics:

- OWRD needs to be clear about its timeline and when different aspects or phases of the study will be complete. There was significant discussion about the two proposed phases, what will be accomplished during these phases, when they will be finished, and how this will affect future planning and decision-making:
 - Phase 1 – Quantitative and conceptual understanding/geologic framework – Compile existing data/information, collect new data/information, improve scientific understanding of groundwater system, including how water moves horizontally and vertically through the system and a detailed water budget (recharge, discharge, and water use) – Complete by end of 2020 – Informs future rulemaking.
 - Phase 2 – Computer simulation model/numerical representation – Develop a computer-based model that allows users to test the conceptual model, simulate conditions, estimate impacts of groundwater management decisions – Complete by the end of 2022 (anticipated) – Informs ongoing management activities.
- Committee members noted that the increase in groundwater development is not necessarily related to the lack of available surface water (this may be a misconception). Groundwater demand is driven more by irrigation technology and the availability of three phase power rather than surface water availability.
- Some members want the study to move as quickly as possible without compromising the scientific integrity of the study. Committee members wanted OWRD and USGS to be aware that future groundwater development is on hold until the study is complete, which has economic impacts.
- Some members emphasized that doing the study right is more important than overall timing.
- Several members indicated that they struggled with the work plan and had a hard time really understanding what the existing information is, what new information/data will be collected, and how it will be analyzed and represented.
- It is unclear in the current work plan what questions OWRD is asking and how they propose to answer each question (i.e., what methods OWRD is using). This could be improved by presenting this information in a tabular format. The work plan could present this information in a more concise and structured manner.
- The work plan lists a lot of different questions, but the relative importance or priority of these questions is unclear. OWRD should indicate which questions have the most bearing on the study.
- Several members of the advisory committee emphasized the need to collect sufficient data to determine the horizontal and vertical movement of water to better understand if/how the

system is connected or separated by geologic features (what are the groundwater flow boundaries?). OWRD confirmed that this will be investigated.

- Committee members recommended that the work plan more clearly delineate between the objectives of the groundwater study and overarching management objectives. The work plan should clearly specify the inputs to the study, how the inputs will be collected, the outputs of the study, and how the outputs will be used in future groundwater management decisions.
- The USGS scope of work is nearly complete and shows how the work plan has evolved since the original draft. The USGS scope of work will be incorporated into the next iteration of the work plan.
- Terrence Conlon (USGS) encouraged the advisory committee members to look at the Table of Contents from other similar groundwater studies to get a better sense of what information will be collected and how it will be analyzed and represented.
- OWRD emphasized that work is ongoing and will be conducted in parallel with any updates to the work plan. OWRD hopes to finalize the work plan by the end of the year. OWRD will continue to actively solicit input/feedback on the draft work plan while moving forward with baseline data collection, observation well installation, and contract negotiation with the USGS. Even when the work plan is final, there will be many opportunities to provide input and feedback.

Decision Points: None

Action Items:

- OWRD will send a link to the advisory committee members with other similar study reports.
- OWRD will develop a one page handout describing Phase 1 and Phase 2 of the study, clarifying what is meant by a “geologic framework/conceptual model” and a “numerical representation/numerical model.”
- OWRD will update the work plan to reflect the USGS scope of work and other updates to the study design/approach. The updated work plan will include an executive summary, clearly lay out what questions are being answered and define specific field efforts. This information will be provided to the advisory committee in advance of the next meeting.
- Committee members will review the existing draft work plan and provide any additional constructive feedback by August 19 so they can be taken into consideration in the revisions.
- OWRD will breakdown the work plan in a tabular format to convey what questions are being asked and how they will be answered (i.e., what methods will be used). OWRD will also provide greater clarity around how questions are prioritized or weighted.

Future Discussion:

- Path forward for finalizing the work plan and additional opportunities for structured input/feedback.
- OWRD led discussion of study questions and methods.

MONITORING NETWORK

OWRD provided a more detailed overview of the monitoring network and the selection criteria for selecting monitoring wells. The network currently consists of state observation wells, quarterly wells, synoptic wells, recorder wells, as well as newly placed dedicated observation well pairs. One observation well pair has been drilled and three additional pairs are planned to be installed this summer.

Key Discussion Topics:

- OWRD continues to seek unused wells to assess for potential inclusion in the observation well monitoring network.
- Some committee members continued to express concern over the construction and condition of old wells and how that may impact data.
- OWRD currently has funds for approximately six more observation well pairs that need to be expended by late next spring and is seeking local input on potential new observation well locations that aligns with the current selection criteria.
- General agreement that well pairs should be placed in areas where there are significant data gaps both horizontally and vertically.
- Committee members expressed continued interest in groundwater flow boundaries and what data/information is being collected to better understand the geologic features that affect flow. Several committee members indicated there is local knowledge that may be able to help direct monitoring networks to some of these areas of interest.

Decision Points: None

Action Items:

- OWRD will develop more detailed maps of areas of interest (discussed at the end of the meeting) – these maps will include important reference points like roads, waterways, TRS, topographic contour lines, etc.
- Interested advisory committee members will use these maps to solicit feedback from other community members about areas of interest that warrant further investigation/data collection.
- OWRD will develop preliminary water table elevation maps as well as water level time-series maps (hydrographs) showing water level changes from year to year to support future discussion.

Future Discussion:

- Discuss and provide input into placement of additional paired wells.
- Discuss preliminary knowledge about groundwater flow boundaries in the basin.
- Elevation of water tables throughout the basin and water level changes from year to year (OWRD will share preliminary data as it is available).

LOCAL MONITORING EFFORTS

Several members of the committee have expressed interest in collecting and submitting local data to the groundwater study. OWRD led the group in a discussion to better understand committee member goals/interests and to discuss next steps.

- OWRD is in need of water use data – this is one of the biggest data gaps that local landowners can help fill.
- Landowners are encouraged to volunteer their unused wells for assessment and potential inclusion in the observation well network.
- Committee members expressed that there should be a clear process for collecting, discussing and analyzing locally collected data. Expectations should be clearly communicated at the beginning to prevent misunderstandings.
- Locally collected groundwater level data would need to meet certain quality assurance parameters in order to be included in the study. Other data can be submitted, but would be used to identify or flag anomalies that warrant additional investigation from OWRD staff. There would be different datasets depending on the quality of data submitted.
- The committee and OWRD should discuss and define a process by which landowners can submit data that they have collected in past years. For instance, one landowner has been collecting monthly groundwater level measurements for 14 years and has observed no changes in water levels.
- Some members expressed that water level measurements collected through permit conditions should be considered or included by OWRD. If landowners are paying to collect this data, it should be used. There may be issues with quality assurance that need to be discussed and addressed in order to include this data.
- A committee member recommended that OWRD focus some monitoring efforts on the agricultural wells that were used to identify declines to corroborate the information that has already been collected and submitted.
- These issues should be better fleshed out in a sub-committee or working group.
- OWRD is currently putting together a framework or flowchart that delineates what aspects of a monitoring program OWRD could put in place and what components would require local coordination.
- OWRD has helped to coordinate a local groundwater monitoring programs in the past. The materials developed for the Eola-Amity Hills Neighborhood Groundwater Monitoring Network may be used as a basis for developing a volunteer data collection program associated with this study. More info here: https://www.oregon.gov/owrd/pages/GW/NGWN_publications.aspx

Decision Points: None

Action Items:

- The committee will assemble a working group to discuss how to build and coordinate a local monitoring network with OWRD.
- OWRD will develop a framework or flowchart to facilitate future discussions about local monitoring activities and how data may be used in the study.
- OWRD will send materials from the Eola-Amity Hills Neighborhood Groundwater Monitoring Network to the committee for the working group to reference.

Future Discussion:

- Quality assurance standards and protocols for locally collected data.
- Roles and responsibilities for developing and implementing a local monitoring network.

COORDINATION AND OUTREACH

Members of the committee provided an overview of other complementary efforts, namely the Goal 5 planning process and place-based integrated water resources planning. The committee briefly discussed the importance of making sure that these efforts are well integrated.

Future Discussion:

- Communication and outreach strategies and activities to engage the broader public.